

District 08 Mobility Performance Report

2018 Third Quarter

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
DIVISION OF OPERATIONS
TMS SUPPORT
November 6, 2018

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2018 Third Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 8 covers approximately 28,650 square miles of land, making it the largest district in California. District 8 consists of two counties; San Bernardino and Riverside. Both counties are in Southern California and part of the Inland Empire. Riverside County has an estimated population of 2.4 million residents while San Bernardino County is estimated at 2.2 million residents. With a total of 4.6 million residents, District 8 comprises of twelve percent of California's total population.

The quarterly Mobility Performance Report compares the data from the current quarter with over a year ago as well as the previous quarter, for the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Delay by County and Route
- Detector Health
- Bottleneck Locations

Vehicle Detector Stations, installed on urban-area freeways are continuously collect data and are strategically placed at locations where congestion is regularly experienced. The MPR uses the data collected from Caltrans Performance Measurement System (PeMS) to produce this report and conduct traffic studies. This report presents congestion information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The 35-mph threshold represents severe congestion, while delay at 60 mph represents all congestion. These thresholds are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

In the third quarter, at the 35-mph speed threshold, Riverside County exhibited 1.58 million vehicle hours of delay followed by San Bernardino County at 1.27 million. Total delay in District 8 equaled 2.85 million VHD for 35 mph speed threshold. This was a 1.5 percent increase from the previous quarter, and a 31 percent increase when compared to the same quarter over a year ago. The 60-mph speed threshold saw a similar trend, during the first quarter of 2018, total delay equaled 7.9 million VHD, which was an increase in delay by 0.3 percent from last quarter and a 25.4 percent increase in delay for the same quarter over a year ago.

Vehicle Miles Traveled (VMT) in District 8 during the third quarter was 7.2 billion miles, which was a 4.5 percent increase when compared to VMT from a year ago and a 1 percent decrease from the previous quarter.

The busiest day of the week as far as congestion for the third quarter was Friday with 129,000 hours of delay for speed under 60 mph followed by Tuesday with 108,000 hours and Thursday with 107,000 hours.

Top Ten AM Bottlenecks @60mph for the 2018 Third Quarter:

Rank	County	City	Freeway	Approximate Location	Period	Begin CA Postmile	Average Extent (miles)	Total Delay (hours)	Average Duration (hours)
1	Riverside	Corona	SR91-W	Green River	AM	R.995	4.4	247,201	3.80
2	Riverside	Corona	SR71-S	Rte 71 / Rte 91 (s/o Prado Dam)	AM	2.5	3.3	44,491	3.64
3	Riverside	Riverside	I215-N	Cental/Watkins	AM	39.643	1.0	38,989	3.28
4	Riverside	Corona	SR91-W	Lincoln	AM	5.28	1.0	36,159	2.98
5	Riverside	Riverside	SR91-W	Pierce Street	AM	10.724	1.5	27,601	3.10
6	San Bernardino	Upland	I210-W	W-B CARNELIAN	AM	4.5	3.6	26,028	1.45
7	Riverside	Corona	I15-N	Bedford Wash (s/o Cajalco Rd)	AM	36.3	3.0	24,994	2.90
8	Riverside	Riverside	I215-S	Center Street	AM	44.908	2.5	24,281	1.84
9	Riverside	Riverside	SR60-W	West of Main Street	AM	11.6	3.1	22,974	1.99
10	Riverside	Perris	I215-N	Harley Knox Blvd	AM	R32.5	3.9	19,649	1.46

Top Ten PM Bottlenecks @60mph for the 2018 Third Quarter

Rank	County	City	Freeway	Approximate Location	Period	Begin CA Postmile	Average Extent (miles)	Total Delay (hours)	Average Duration (hours)
1	San Bernardino	Fontana	I10-E	FONTANA REST	PM	13.8	3.4	86,641	3.33
2	San Bernardino	Victorville	I15-N	OAKIE FLATS	PM	R17.401	3.3	60,570	2.09
3	Riverside	Corona	I15-S	CAJALCO ROAD	PM	37.1	3.4	59,389	2.67
4	San Bernardino	Rancho Cucamonga	I15-N	4TH ST NB ONR	PM	3.2	1.2	55,564	3.84
5	San Bernardino	Upland	I210-E	MILLIKEN WB ON	PM	7.73	5.6	45,168	1.84
6	Riverside	Riverside	I215-N	CENTRAL -WATKINS	PM	39.643	3.7	39,287	1.55
7	San Bernardino	Ontario	I15-S	JURUPA	PM	.969	1.5	39,027	2.69
8	San Bernardino	Ontario	I10-E	HAVEN AVE	PM	8.22	2.2	34,989	1.96
9	Riverside	Unincorporated	I215-S	Vanburen Blvd	PM	R33.463	3.1	33,543	1.92
10	Riverside	Riverside	SR91-W	PIERCE	PM	10.724	1.6	32,543	3.29

PROJECT STATUS

The following District 8 projects which are separated by county are currently in construction for the year of 2018. These projects will relieve congestion in District 8, however during the construction phase there might be an increase in delay during off-peak periods due to lane closures.

Riverside County:

RIV - Rte. 10: Location - City of Indio at Jefferson St, EA: 475204

Postmile 51.70 to 53.10 - Demolish existing bridge and northbound Indio Boulevard overcrossing, and replace with new six-lane bridge.

RIV - Rte 15: Location - From San Diego county line to 15/91 separation, EA: 0G7704

Postmile R0.00 to 41.80 - Install New Fiber Optic infrastructure on Rte 15 from PM 0.00/41.80 and upgrade newly installed wireless vehicle detection stations. Connect all the existing TMS elements to the newly installed Fiber Optic infrastructure

RIV - Rte 15,79: Location - Temecula @ I-15/SR-79 South Interchange, EA: 432304

Rte 15 Postmile 3.00 to 4.00, Rte 79 Postmile 19.60 to 19.90 – Realign and reconstruct onramp and offramp.

RIV - Rte 15: Location - Interstate 15/Cajalco Road Interchange, EA: 0J6104

Postmile 36.40 to 37.60 - Interchange Improvements & Reconstruction

RIV – Rte 15: Location – SR74 to SR-60 and I-215 to SR-74, EA: 0J080

I-15 Corridor Improvement Project to add two Toll Express lane each direction from Cajalco Road to State Route 60, widen bridges and add sound wall.

RIV – Rte 60: Location – Highway 60 at Potrero Blvd, City of Beaumont, EA: 34141

Postmile 28.70 to 30.20, New Bridge and Highway widening

RIV – Rte 15: Location – I-15/SR-79, EA: 43230

Postmile 3.0 to 4.0, Interchange Improvement @ SR-79(Front St) and I-15.

RIV – Rte 60: Location – Rte 60 from Milliken Ave to 91/215

Postmile 0.0 to R12.2, Replace wireless communication system with Fiber Optic Infrastructure.

RIV – Rte 15: Location Limonite Ave/I-15, EA: 0E150

Postmile Various, Interchange Improvement

San Bernardino County:

SBD - Rte 10: Location – San Bernardino County from Redlands to Orange St, EA: 0K2914

Postmile 30.90 to 33.30, Lane Replacement in San Bernardino County in Redlands from Orange Street Undercrossing to Redlands Blvd off-ramp undercrossing.

SBD - Rte 15: Location – Kenwood Ave to West Hesperia, EA: 0Q7404

Postmile 15.40 to 30.80, Lane Replacement on I-15 from 0.4 mile north of Kenwood Avenue to 0.3 mile south of West Hesperia OH

SBD - Rte 15: Location – Victorville from Mojave Dr to Stoddard Wells Rd, EA: 3555VA

Postmile 42.50 to 46.00, In San Bernardino County in Victorville from 0.5 Mile North of Mojave Drive to 1.5 Mile North of Stoddard Wells Road Overcrossing, Widen I-15, Reconstruct 3 IC'S, Construct 2 new BR and widen 3 BR

SBD – Rte Various Locations, San Bernardino and Riverside County, EA: 1C6304

Install Road Weather Information System and Modify Existing Electrical system

SBD – Rte 215: Locations – Rte 215/Barton Rd, EA: 0J070

Postmile 0.58/1.95, Project to reconstruct the existing I-215/Barton Rd Interchange.

SBD – Rte 210: Location – From Rte 10 to Rte 215, EA: 0E5514

Postmile 21.8 to 29.8, Install RMS, CCTV, VDS, CMS and Fiber Optic Backbone.

2018 Second Quarter Mobility Statistics District 8

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table><thead><tr><th>Period</th><th>VMT (Billions)</th></tr></thead><tbody><tr><td>2017 Q3</td><td>6.9</td></tr><tr><td>2018 Q2</td><td>7.3</td></tr><tr><td>2018 Q3</td><td>7.2</td></tr></tbody></table>	Period	VMT (Billions)	2017 Q3	6.9	2018 Q2	7.3	2018 Q3	7.2	Over one year ago	Over last quarter
		Period	VMT (Billions)								
2017 Q3	6.9										
2018 Q2	7.3										
2018 Q3	7.2										
		4.5% ↑	-0.9% ↓								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table><thead><tr><th>Period</th><th>VHD (Millions)</th></tr></thead><tbody><tr><td>2017 Q3</td><td>2.20</td></tr><tr><td>2018 Q2</td><td>2.80</td></tr><tr><td>2018 Q3</td><td>2.90</td></tr></tbody></table>	Period	VHD (Millions)	2017 Q3	2.20	2018 Q2	2.80	2018 Q3	2.90	Over one year ago	Over last quarter
		Period	VHD (Millions)								
2017 Q3	2.20										
2018 Q2	2.80										
2018 Q3	2.90										
		30.9% ↑	1.5% ↑								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table><thead><tr><th>Period</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2017 Q3</td><td>30.0</td></tr><tr><td>2018 Q2</td><td>38.0</td></tr><tr><td>2018 Q3</td><td>39.0</td></tr></tbody></table>	Period	VHD (Thousands)	2017 Q3	30.0	2018 Q2	38.0	2018 Q3	39.0	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
2017 Q3	30.0										
2018 Q2	38.0										
2018 Q3	39.0										
		30.5% ↑	2.7% ↑								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table><thead><tr><th>Period</th><th>VHD (Millions)</th></tr></thead><tbody><tr><td>2017 Q3</td><td>6.3</td></tr><tr><td>2018 Q2</td><td>7.8</td></tr><tr><td>2018 Q3</td><td>7.9</td></tr></tbody></table>	Period	VHD (Millions)	2017 Q3	6.3	2018 Q2	7.8	2018 Q3	7.9	Over one year ago	Over last quarter
		Period	VHD (Millions)								
2017 Q3	6.3										
2018 Q2	7.8										
2018 Q3	7.9										
		25.4% ↑	0.3% ↑								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table><thead><tr><th>Period</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2017 Q3</td><td>86</td></tr><tr><td>2018 Q2</td><td>106</td></tr><tr><td>2018 Q3</td><td>108</td></tr></tbody></table>	Period	VHD (Thousands)	2017 Q3	86	2018 Q2	106	2018 Q3	108	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
2017 Q3	86										
2018 Q2	106										
2018 Q3	108										
		24.8% ↑	2% ↑								

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph	<p>Hours (Thousands)</p> <p>■ 2017 Q3 ■ 2018 Q2 ■ 2018 Q3</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		—	Monday -12.7%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Wednesday 33.8%	Tuesday 14.6%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays	<p>Hours (Thousands)</p> <p>— Weekday (2017 Q3) — Weekday (2018 Q2) — Weekday (2018 Q3)</p>	Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		—	4 PM -3.4%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		7 AM 40.6%	6 PM 14%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays	<p>Hours (Thousands)</p> <p>— Saturday (2017 Q3) — Saturday (2018 Q2) — Saturday (2018 Q3)</p>	Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		11 PM -21.1%	9 PM -43.3%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		3 PM 60.2%	7 PM 430.8%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays	<p>Hours (Thousands)</p> <p>— Sunday/Holiday (2017 Q3) — Sunday/Holiday (2018 Q2) — Sunday/Holiday (2018 Q3)</p>	Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		10 AM -26.3%	2 PM -37.5%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		3 PM 23.7%	6 AM 85.7%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	<p>Hours (Millions)</p> <p>2017 Q3 2018 Q2 2018 Q3</p> <p>Riverside San Bernardino</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		–	Riverside -4.9%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Riverside 34.3%	San Bernardino 10.8%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	<p>Miles</p> <p>2017 Q3 2018 Q2 2018 Q3</p> <p>AM Peak (6 AM to 10 AM) Off-Peak Day (10 AM to 3 PM) PM Peak (3 PM to 7 PM) Off-Peak Night (7 PM to 6 AM)</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		–	AM Peak -0.8%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 25%	PM Peak 2.2%
Average Number of Good and Bad Detectors	<p>Number of Detectors</p> <p>Average of Good Average of Bad</p> <p>2017 Q3 2018 Q2 2018 Q3</p>	Change in Good over one year ago	Change in Good over last quarter
		12.7%	-0.3%
		Change in Bad over one year ago	Change in Bad over last quarter
		-12.2%	0.3%

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2018 Q3-2017 Q3		Difference 2018 Q3-2018 Q2		Rank		
		2017 Q3	2018 Q2	2018 Q3	Absolute	Percentage	Absolute	Percentage	2017 Q3	2018 Q2	2018 Q3
SR91	Riverside	444,019	568,090	565,964	121,945	27.5%	-2,126	-0.4%	1	1	1
I215	Riverside	312,982	438,376	440,497	127,515	40.7%	2,121	0.5%	3	3	2
I15	Riverside	276,041	446,844	400,419	124,378	45.1%	-46,425	-10.4%	4	2	3
I10	San Bernardino	216,866	390,869	386,929	170,063	78.4%	-3,940	-1.0%	5	4	4
I15	San Bernardino	391,580	335,255	377,871	-13,709	-3.5%	42,616	12.7%	2	5	5
I210	San Bernardino	158,556	175,102	237,910	79,354	50.0%	62,808	35.9%	6	6	6
SR60	San Bernardino	117,266	122,381	141,160	23,894	20.4%	18,778	15.3%	7	8	7
SR60	Riverside	100,767	125,795	104,489	3,722	3.7%	-21,306	-16.9%	8	7	8
I215	San Bernardino	49,212	66,953	68,611	19,399	39.4%	1,658	2.5%	10	9	9
SR71	San Bernardino	68,622	57,301	58,778	-9,843	-14.3%	1,478	2.6%	9	10	10
SR71	Riverside	29,478	39,423	41,568	12,090	41.0%	2,144	5.4%	11	12	11
I10	Riverside	14,084	44,105	28,108	14,023	99.6%	-15,997	-36.3%	12	11	12
TOTALS		2,179,472	2,810,495	2,852,303	672,831	30.9%	41,808	1.5%			